

For LEDs here are some common data from a led company.

Product Specifications		Product Specifications		Product Specifications	
Product Attribute	Attribute Value	Product Attribute	Attribute Value	Product Attribute	Attribute Value
Color Emittied	Yellow	Color	Red	Color Emittied	Green
Current, Forward	30 mA	Color Emittied	Red	Current, Forward	30 mA
Family Name	VAOL Series	Current, Forward	100 mA	Family Name	VAOL Series
Finish, Lens	Transparent	Family Name	VAOL Series	Finish, Lens	Transparent
Lens Color	Clear	Finish, Lens	Clear	Lens Color	Clear
Lens Shape	Round	Lens Color	Clear	Lens Shape	Round
Luminous Intensity	150 mcd	Lens Shape	Dome	Luminous Intensity	170 mcd
Mounting Type	Through Hole	Luminous Intensity	150 mcd	Mounting Type	Through Hole
Number of Leads	2	Mounting Type	Through Hole	Number of Leads	2
Package Type	T1 (3 mm)	Number of Leads	2	Package Type	T1 (3 mm)
Series	VAOL5 Series	Package Type	T1 (3mm)	Series	VAOL5 Series
Viewing Angle	30 °	Series	VAOL Series	Viewing Angle	30 °
Voltage, Forward	1.8 V	Viewing Angle	30 °+	Voltage, Forward	2.2 V
Wavelength, Peak	590 nm	Voltage, Forward	1.8 V	Wavelength, Peak	570 nm
		Wavelength, Peak	640 nm		

Product Specifications		
Product Specifications		Attribute Value
Product Attribute	Attribute Value	
Color Emittied	White	Color
Current, Forward	30 mA	Color Emittied
Family Name	VAOL Series	Current, Forward
Finish, Lens	Transparent	Family Name
Lens Color	Clear	Finish, Lens
Lens Shape	Round	Lens Color
Luminous Intensity	3500 mcd	Lens Shape
Mounting Type	Through Hole	Luminous Intensity
Number of Leads	2	Mounting Type
Package Type	T1 (3 mm)	Number of Leads
Series	VAOL5 Series	Package Type
Viewing Angle	30 °	Series
Voltage, Forward	3.5 V	Viewing Angle
		Voltage, Forward
		Wavelength, Peak

In general, those led contains:

Common view angle 30 degree.

Different luminous intensity from 150(red and yellow) to 3500(white) mcd.

Different voltage drop from 1.8(red and yellow) to 3.5(white) V.

Two types of lens shape are dome and round.

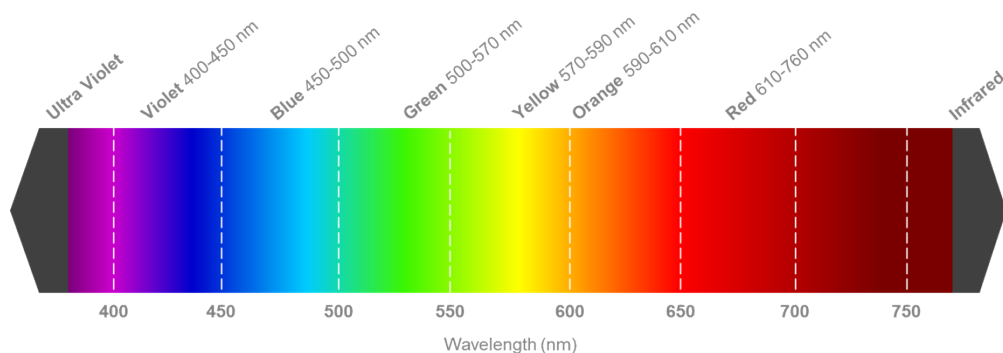
And here are two special leds.

This led have 35 degree viewing angle and power dissipation is 100 mW.

Characteristics	Symbol	Test Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	$I_F = 20 \text{ mA}$	–	3.5	4.0	V
Reverse Current	I_R	$V_R = 5 \text{ V}$	–	–	50	μA
Luminous Intensity	I_V	$I_F = 20 \text{ mA}$	1800	2250	–	mcd
Wavelength = 550 nm						
Chromaticity Coordinates	x	$I_F = 10 \text{ mA}$	–	0.29	–	
	y	$I_F = 10 \text{ mA}$	–	0.28	–	
Full Viewing Angle	θ	$I_V = 1/2 \text{ Peak}$	–	35	–	degree

This led provide very high luminous intensity which can reach 28500 mcd, but with 20 degree angle and power dissipation is 120 mW.

FORWARD VOLTAGE	-	3.5	4.0	V_f	$I_f=20\text{mA}$
REVERSE CURRENT	-	-	50	μA	$V_R=5\text{V}$
LUMINOUS INTENSITY	14250	-	28500	mcd	$I_f=20\text{mA}$
VIEWING ANGLE	-	20	-	$2x \text{ theta}1/2$	$I_f=20\text{mA}$
EMITTED COLOR	WHITE				
EPOXY LENS FINISH	WATER CLEAR				



Referred from website of lumex company. AND
<https://www.rs-online.com/designspark/led-wavelength-vs-led-colour>